WHAT IS CLAIMED IS:

1. A binding member removing apparatus, comprising a tray for mounting thereon a bundle of sheets of paper bound with a binding member, a removing unit for removing said binding member from said bundle of sheets of paper mounted on said tray, and a moving unit for moving said binding member removed in said removing unit.

2. A binding member removing apparatus according to claim 1, wherein said moving unit moves the removed binding member on said bundle of sheets of paper.

3. A binding member removing apparatus according to claim 1, which further comprises a receiving part positioned in the proximity of said tray and adapted to receive said binding member conveyed by said moving unit.

4. A binding member removing apparatus according to claim 3, wherein said moving unit incorporates in the proximity of said receiving part a separating member for separating said binding member from said unit.

5. A binding member removing apparatus according to claim 4, wherein said separating member is a blade.

6. A binding member removing apparatus according to claim 1, wherein said moving unit contains a magnetic body and said binding member is moved by moving said magnetic body.

7. A binding member removing apparatus according to

claim 6, wherein said magnetic body is a conveying belt endowed with magnetic power.

8. A binding member removing apparatus according to claim 1, wherein said moving unit comprises a conveying belt and a magnetic body opposed to said binding member across said conveying belt.

9. A binding member removing apparatus according to claim 8, which further comprises a receiving part for receiving said binding member conveyed by said moving unit, said magnetic body being so constructed that the magnetic force thereof is weakened in the proximity of said receiving part.

10. A binding member removing apparatus according to claim 8, wherein said magnetic body is an electromagnet.

11. A binding member removing apparatus according to claim 1, wherein said moving unit is so constructed as to be freely moved between the first position approximating closely to said tray and the second position parted from said tray.

12. A binding member removing apparatus according to claim 1, wherein said moving unit includes a fan and moves said binding member with wind force.

13. A binding member removing apparatus according to claim 1, wherein said moving unit includes a belt furnished

on the surface thereof with a brush and moves said binding member by moving said belt.

14. An automatic document feeder for sequentially conveying document sheets from a bundle of document sheets, comprising a tray for mounting thereon a bundle of document sheets bound with a binding member, a removing unit for removing said binding member from said bundle of document sheets mounted on said tray, and a moving unit for moving said binding member removed in said removing unit.

15. An automatic document feeder according to claim 14, wherein said moving unit moves the removed binding member on said bundle of document sheets.

16. A sheet processing apparatus for performing a prescribed processing on a sheet, comprising a tray for mounting thereon a bundle of sheets of paper bound with a binding member, a removing unit for removing said binding member from said bundle of sheets of paper mounted on said tray, and a moving unit for moving said binding member removed in said removing unit.

17. A sheet processing apparatus according to claim 16, wherein said moving unit moves the removed binding member on said bundle of sheets of paper.

18. An image forming apparatus for forming an image on a sheet of paper, comprising a tray for mounting thereon a

bundle of sheets of paper bound with a binding member, a removing unit for removing said binding member from said bundle of sheets of paper mounted on said tray, and a moving unit for moving said binding member removed in said removing unit.

19. An image forming apparatus according to claim 18, wherein said moving unit moves said removed binding member on said bundle of sheets of paper.

20. A binding member removing apparatus, comprising an inserting member to be passed between a bundle of sheets of paper and a binding member for binding said bundle of sheets of paper, said inserting member being provided with a plurality of elongated parts formed in the shape of a comb having teeth elongated in the direction of insertion of said inserting member.

21. A binding member removing apparatus according to claim 20, wherein said elongated parts are so formed that the thicknesses thereof decrease in the direction of the leading ends thereof.

22. A binding member removing apparatus according to claim 20, wherein said inserting member is provided in a removing unit, said removing unit is so constructed as to be moved relative to said bundle of sheets of paper.

23. A binding member removing apparatus according to

claim 20, which further comprises a driving mechanism for moving said inserting member in the direction of the interface between said bundle of sheets of paper and said binding member.

24. A binding member removing apparatus according to claim 23, wherein said driving mechanism contains an electric actuator.

25. A binding member removing apparatus according to claim 23, wherein said driving mechanism contains a spring member.

26. A binding member removing apparatus according to claim 23, wherein said driving mechanism comprises a rack formed on the rear end of said inserting member and a pinion meshed with said rack.

27. A binding member removing apparatus according to claim 23, which further comprises an arm connected to said inserting member, said inserting member being moved by oscillating said arm with said driving mechanism.

28. A binding member removing apparatus according to claim 20, which further comprises a guiding member for guiding the movement of said inserting member.

29. An automatic document feeder for sequentially conveying document sheets from a bundle of document sheets, comprising a removing unit for removing a binding member from

said bundle of document sheets, said removing unit being provided with an inserting member to be passed between said bundle of document sheets and said binding member for binding said bundle of document sheets, and said inserting member being provided with a plurality of extended parts formed in the shape of a comb having teeth extended in the direction of insertion thereof.

30. An automatic document feeder according to claim 29, which further comprises a tray for mounting thereon said bundle of document sheets, said removing unit being disposed in the proximity of said tray.

31. A sheet processing apparatus for performing a prescribed processing on a sheet, comprising a removing unit for removing a binding member from a bundle of sheets of paper, said removing unit being provided with an inserting member to be passed between said bundle of sheets of paper and said binding member for binding said bundle of sheets of paper, and said inserting member being provided with a plurality of extended parts formed in the shape of a comb having teeth extended in the direction of insertion thereof.

32. An image forming apparatus for forming an image on a sheet, comprising a removing unit for removing a binding member from a bundle of sheets of paper, said removing unit being provided with an inserting member to be passed between

said bundle of sheets of paper and said binding member for binding said bundle of sheets of paper, and said inserting member being provided with a plurality of extended parts formed in the shape of a comb having teeth extended in the direction of insertion thereof.

33. A binding member removing apparatus, comprising a removing unit for removing a binding member from a bundle of sheets of paper and discriminating means for determining whether or not said binding member has been removed from said bundle of sheets of paper after the operation for removal of said binding member by said removing unit.

34. A binding member removing apparatus according to claim 33, which further comprises a controller for performing again the operation for removal by said removing unit after said discriminating means has determined that said binding member has not been removed.

35. A binding member removing apparatus according to claim 34, wherein said controller limits the number of repeated circles of the operation for removal by said removing unit to a prescribed number.

36. A binding member removing apparatus according to claim 35, which further comprises a display for posting an alarm when said discriminating means determines that said binding member has not been removed after said operation for

removal is performed up to a prescribed number of repetitions.

37. A binding member removing apparatus according to claim 34, wherein said controller, when repeating said operation for removal, performs said operation for removal with the operating conditions of said removing unit changed.

38. A binding member removing apparatus according to claim 33, which further comprises a sensor for detecting the binding material in a bundle of sheets of paper, said discriminating means forming a judgment that said binding material has not been removed when said sensor detects said binding material after the operation for removal.

39. An automatic document feeder for sequentially transmitting document sheets from a bundle of document sheets, comprising a removing unit for removing said binding material from said bundle of document sheets and discriminating means for forming a judgment whether or not said binding material has been removed from said bundle of document sheets after the operation for removal of said binding material by said removing unit.

40. An automatic document feeder according to claim 39, which further comprises a controller for repeating said operation for removal by said removing unit when said discriminating means has formed a judgment that said binding

material has not been removed.

41. An automatic document feeder according to claim 40, wherein said controller limits the number of repeated circles of the operation for removal by said removing unit to a prescribed number.

42. An automatic document feeder according to claim 39, which further comprises a tray for mounting therein a bundle of document sheets, a conveying unit for sequentially conveying document sheets from said bundle of document sheets on said tray, and a conveying controller for controlling said conveying unit so as to convey said document sheets sequentially after said binding member has been removed by said removing unit from said bundle of document sheets.

43. An automatic document feeder according to claim 42, wherein said conveying controller stops the conveyance of document sheets by said conveying unit when said discriminating means forms a judgment that said binding material has not been removed.

44. A sheet processing apparatus for performing a prescribed processing on a sheet, comprising a removing unit for removing a binding member from a bundle of sheets of paper and discriminating means for determining whether or not said binding member has been removed from said bundle of sheets of paper after the operation for removal of said binding

member by said removing unit.

45. An image forming apparatus for forming an image on a sheet, comprising a removing unit for removing a binding member from a bundle of sheets of paper and discriminating means for determining whether or not said binding member has been removed from said bundle of sheets of paper after the operation for removal of said binding member by said removing unit.

46. A binding member removing apparatus for removing a binding member from a bundle of sheets of paper, comprising an inserting member to be passed between said bundle of sheets of paper and said binding member binding said bundle of sheets of paper, said inserting member comprising a first inserting member to be passed between a first face of said bundle of sheets of paper and said binding material and a second inserting member to be passed between a second face of said bundle of sheets of paper and said binding member.

47. A binding member removing apparatus according to claim 46, which further comprises driving means for moving said inserting member in the direction of insertion.

48. A binding member removing apparatus according to claim 47, wherein said inserting member is so constructed that said second inserting member is passed between said bundle of sheets of paper and said binding member earlier

than said first inserting member when said inserting members are moved by said driving means.

49. A binding member removing device according to claim 48, wherein said binding member forms the shape of a needle provided with opposite pointed end parts, said second inserting member is inserted on the side on which said opposite ends of said binding member are positioned, and said first inserting member is inserted on the side on which said opposite ends of said binding material are not positioned.

50. A binding member removing appaartus according to claim 46, wherein said binding member forms the shape of a needle provided with opposite pointed end parts, said second inserting member functions to open said opposite end parts of said binding member, and said first inserting member functions to extract said binding member.

51. An automatic document feeder for sequentially conveying document sheets from a bundle of document sheets, comprising a removing unit for removing a binding member from said bundle of document sheets, said removing unit being provided with an inserting member to be passed between said bundle of document sheets and said binding member binding said bundle of document sheets, and said inserting member comprising a first inserting member to be passed between a first face of said bundle of document sheets and said binding

material and a second inserting member to be passed between a second face of said bundle of document sheets and said binding material.

52. A sheet processing apparatus for performing a prescribed processing on a sheet, comprising a removing unit for removing a binding member from a bundle of sheets of paper, said removing unit being provided with an inserting member to be passed between said bundle of sheets of paper and said binding member binding said bundle of sheets of paper, and said inserting member comprising a first inserting member to be passed between a first face of said bundle of sheets of paper and said binding material and a second inserting member to be passed between a second face of said bundle of sheets of paper and said binding material.

53. An image forming apparatus for forming an image on a sheet, comprising a removing unit for removing a binding member from a bundle of sheets of paper, said removing unit being provided with an inserting member to be passed between said bundle of sheets of paper and said binding member binding said bundle of sheets of paper, and said inserting member comprising a first inserting member to be passed between a first face of said bundle of sheets of paper and said binding material and a second inserting member to be passed between a second face of said bundle of sheets of paper and said

binding material.